ly healing about the eleventh day (without any fever). On the fifteenth the patient left the clinic, having been ordered to wear a supporting abdominal bandage for a year. The stone had an ovoid form, measured 3x2 ctm. and weighed 7.5 grammes, its surface being studded with elevations of the size of a hemp seed.—*Vratch*, No. 27, 1890, p. 593.

VALERIUS IDELSON (Berne).

V. The Minute Changes in the Formation of the Umbilical Ring. By DR. W. HERZOG (Munich). Author was induced to undertake the above investigations on account of the peculiar relation existing between the umbilical cicatrix and the hernia in umbilical herniæ. The cicatrix in the majority of the cases is found not on the vertex of the tumor but at the inferior pole of the same on a level with the abdominal walls. Author had a series of sections in fœtuses beginning at the fourth month of fœtal life, to full term. These sections included the abdominal wall, the vein and the umbilical artery as far as the bladder. The most striking fact first noticed was the extraordinary thickness of the adventitia of the vessels. The adventitia of the artery at the very earliest period is 2 or 3 times the thickness of the remaining coats. The tissue of the adventitia is that of loose embryonal connective tissue, exactly similar to the adventitia of the artery of the umbilical cord. The muscular layer is but scant in distribution and extent. The elastic intima in this artery is entirely wanting. The lumen of the vessel on this account is marked by small dilatations and contractions. The above described adventitia is directly continuous with the tissue of the cord.

This can be well seen as the artery enters the cord at the ring. This adventitia loose connective embryonal tissue, which at first is loosely connected with the abdominal ring, becomes converted at a later period just before birth, into firm connective tissue so that the arteries at the umbilical ring are firmly united by this tissue to the sheaths of the recti and to the fibrous expanse of tissue perforated between the recti by the cord. With the veins the conditions are different. The adventitia seen in the arteries is not present. The vein is made up principally of a media, composed of formed connective tissue, in which muscular fibres are distributed irregularly, both as to location and direction. There is neither elastic interna nor elastic fibre, and the lumen of the vessel is very uneven in calibre. The tissue of the cord is not in any way firmly connected with the wall of the vein, either at the umbilicus or in the cord. In the first months of extra-uterine life we find the umbilicus closed, and a mass of connective tissue filling up the whole space between the muscular recti, and uniting the skin above on each side and the sheaths of the recti. In the upper part of this umbilical cicatrix we find a very thin plate of tissue, and beneath this the loose fascia umbilicalis in which are found the obliterated umbilical vein not in any way connected with the surrounding tissue In longitudinal sections in older children, strong bands of connective tissue seem to pass from the inferior part of the umbilical ring to the skin, while in the superior part of the umbilicus we find weak strands passing to the umbilical cicatrix, which are, however, firmly connected. A hernia would find the least resistance between the inferior connective tissue mass and the upper border of the umbilical ring, and passes in this direction. In this manner the formation of herniæ depends upon the changes which take place around the blood vessels. The umbilicus is not a new structure but simply a conversion of the fœtal embryonal tissue of the cord and its structures into formed connective tissue.—*Beilage zum Centralbl f. Chir.*, No. 25, 1890

VI. Operations Upon the Intestine in Cases of Stricture and Stenosis with Special Reference to Carcinoma of the Intestine. By DR. KOENIG (Gottingen). During the past 10 years, 14 laparotomies were performed in cases which were thought to be intestinal stenoses, caused by the presence of intestinal tumors. In one case the obstruction was caused by a bridge of tissue (a band) across the flexura coli, in 13 cases there was disease of the intestines. Ten of these cases were carcinoma of the large intestine, 3 cæcum, 1 colon ascendens, 2 colon transversus, 4 descendens. Two cases were sarcoma of the small intestine, and once stenosing tuberculosis Of these cases 3 were not carried out farther than an exploratory incision.